

DERWENT-ACC-NO: 1999-104430

DERWENT-WEEK: 199909

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TITLE: Controlled liquid cooling of semiconductor
converter in drive system of electric vehicle - has channel
bringing water into heat conduction contact with heat
dissipating parts on converter with temperature measuring
sensor and valve control unit actuating flow of water
through valve.

PATENT-ASSIGNEE: ANONYMOUS [ANON]

PRIORITY-DATA: 1998RD-0417012 (December 20, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES MAIN-IPC		
RD 417012 A ✓	January 10, 1999	N/A
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APPLICATION-DATA:

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RD 417012A	N/A	1998RD-0417012
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INT-CL (IPC): H02B000/00

ABSTRACTED-PUB-NO: RD 417012A

BASIC-ABSTRACT:

The electric vehicle drive system has a semiconductor converter (1) for conversion and transmission of electric power between an energy storage and the motors of the drive system. The converter is liquid cooled and the cooling equipment has cooling systems (2,3) for the converter and the motors. The cooling systems are coupled in parallel and connected to a heat

exchanger (4).

A pump (5) maintains the circulation of the cooling medium, which preferably is water.

The cooling system of the converter has a channel (6) for the water which brings the water into heat conduction contact with the heat dissipating parts of the converter. A temperature measuring device (8) senses the outlet temperature of the water and a valve control unit actuates the valve in the channel depending on the sensed temperature.

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: CONTROL LIQUID COOLING SEMICONDUCTOR CONVERTER DRIVE SYSTEM

ELECTRIC VEHICLE CHANNEL WATER HEAT CONDUCTING CONTACT
HEAT

DISSIPATE PART CONVERTER TEMPERATURE MEASURE SENSE VALVE
CONTROL

UNIT ACTUATE FLOW WATER THROUGH VALVE

DERWENT-CLASS: X12 X21 X22

EPI-CODES: X12-J01G; X21-A01D; X21-B05; X22-P04;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1999-075368

